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Oklahoma Physicians Resource/Research Network

Engaging Patients and Primary Care Clinicians Through a Wellness Portal to Improve the Health of Oklahomans

Zsolt Nagykaldi, PhD
Assistant Professor of Research
Network Coordinator – OKPRN

University of Oklahoma HSC Department of Family Medicine
Oklahoma Physicians Resource/Research Network (OKPRN)

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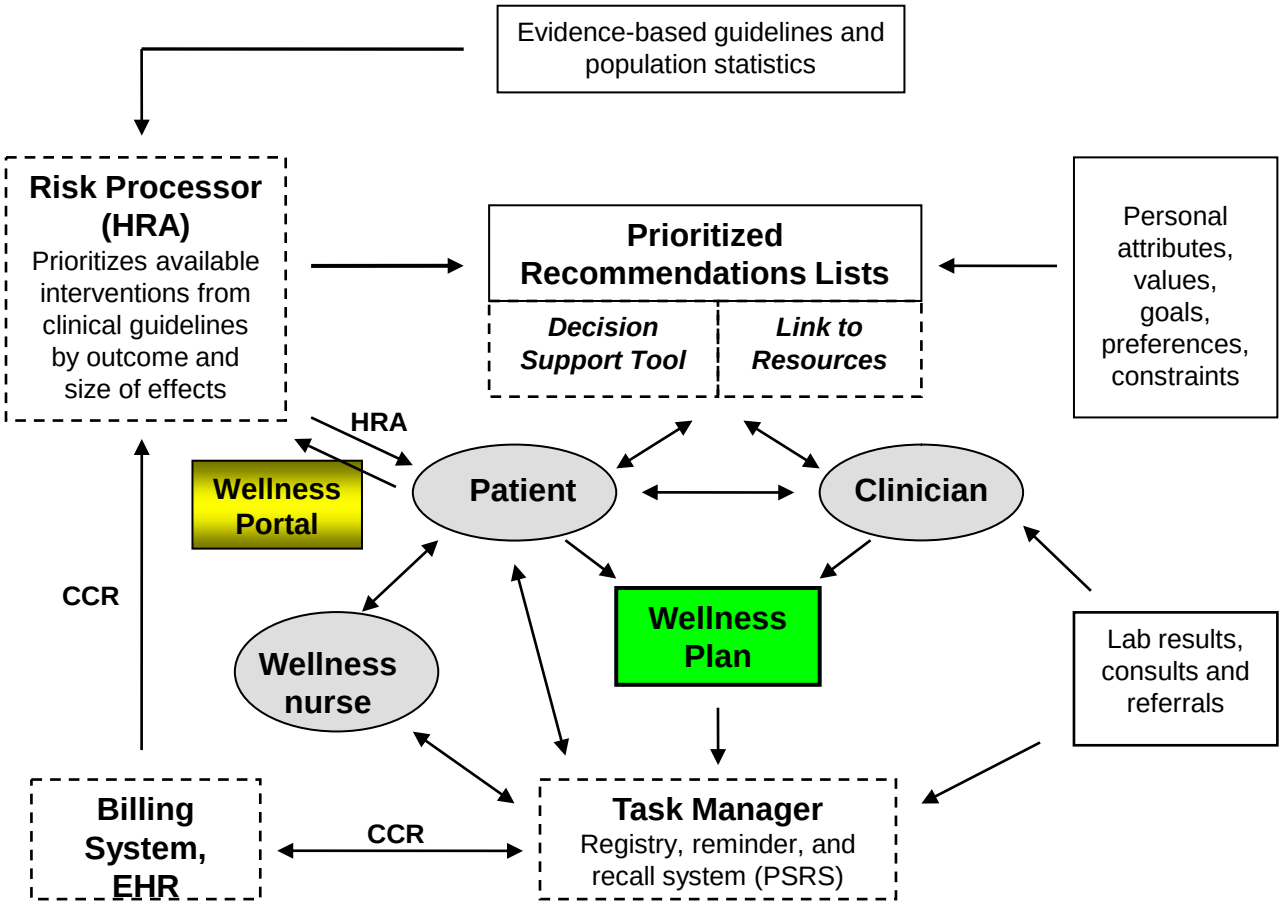
Wellness Portal Project
(09/01/2007 – 08/31/2010)

AHRQ Grant 1R18HS017188-01 "*Impact of a Wellness Portal on the Delivery of Patient-Centered Prospective Care*"

Phases:

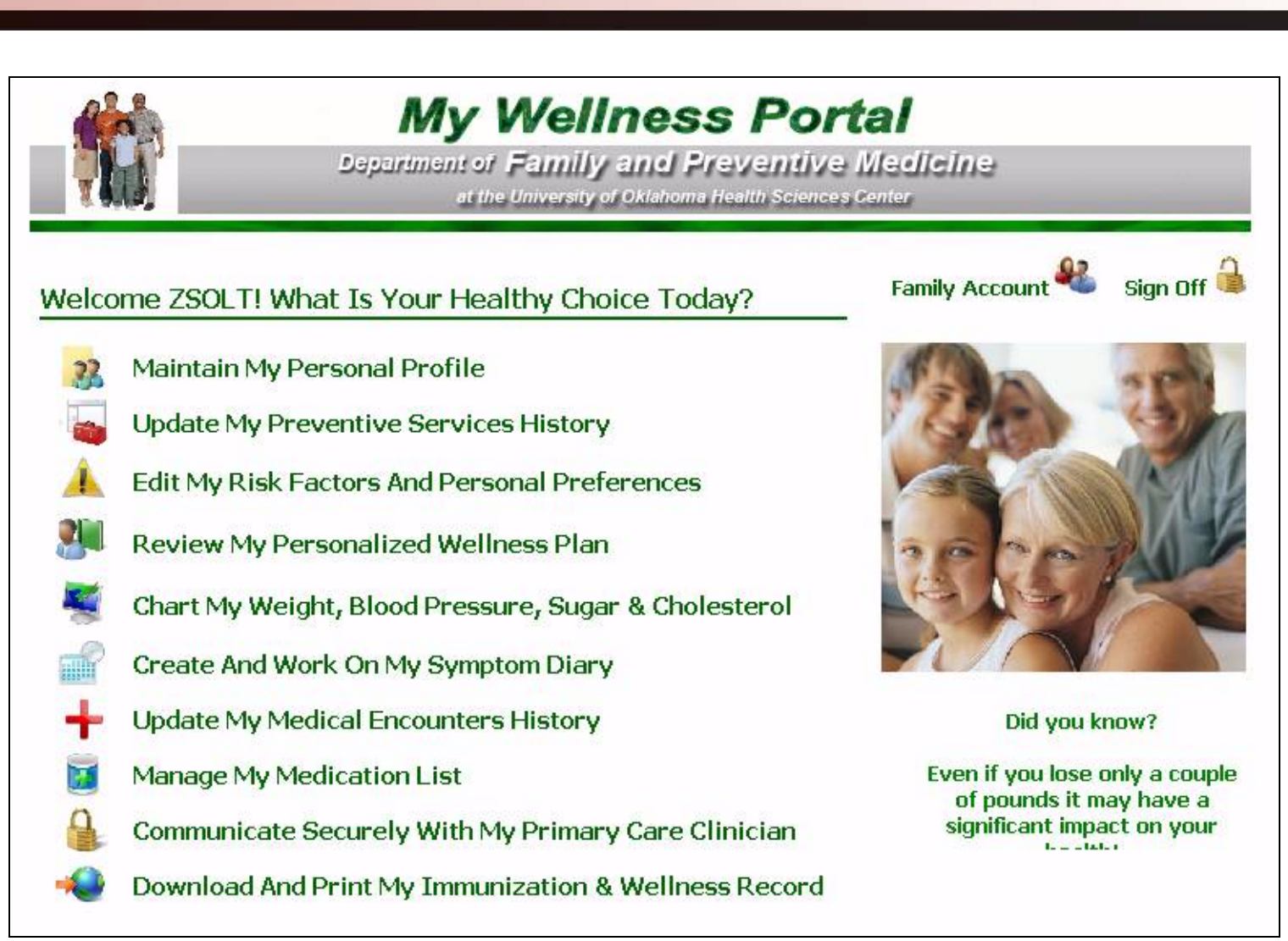
- Design, development, and a 6-month pilot study (2008-09)
- A 12-month randomized controlled trial; N=560 (2009-10)
- Dissemination of delivery model and technology (2010)

The "Big Picture": Integration Into Primary Care

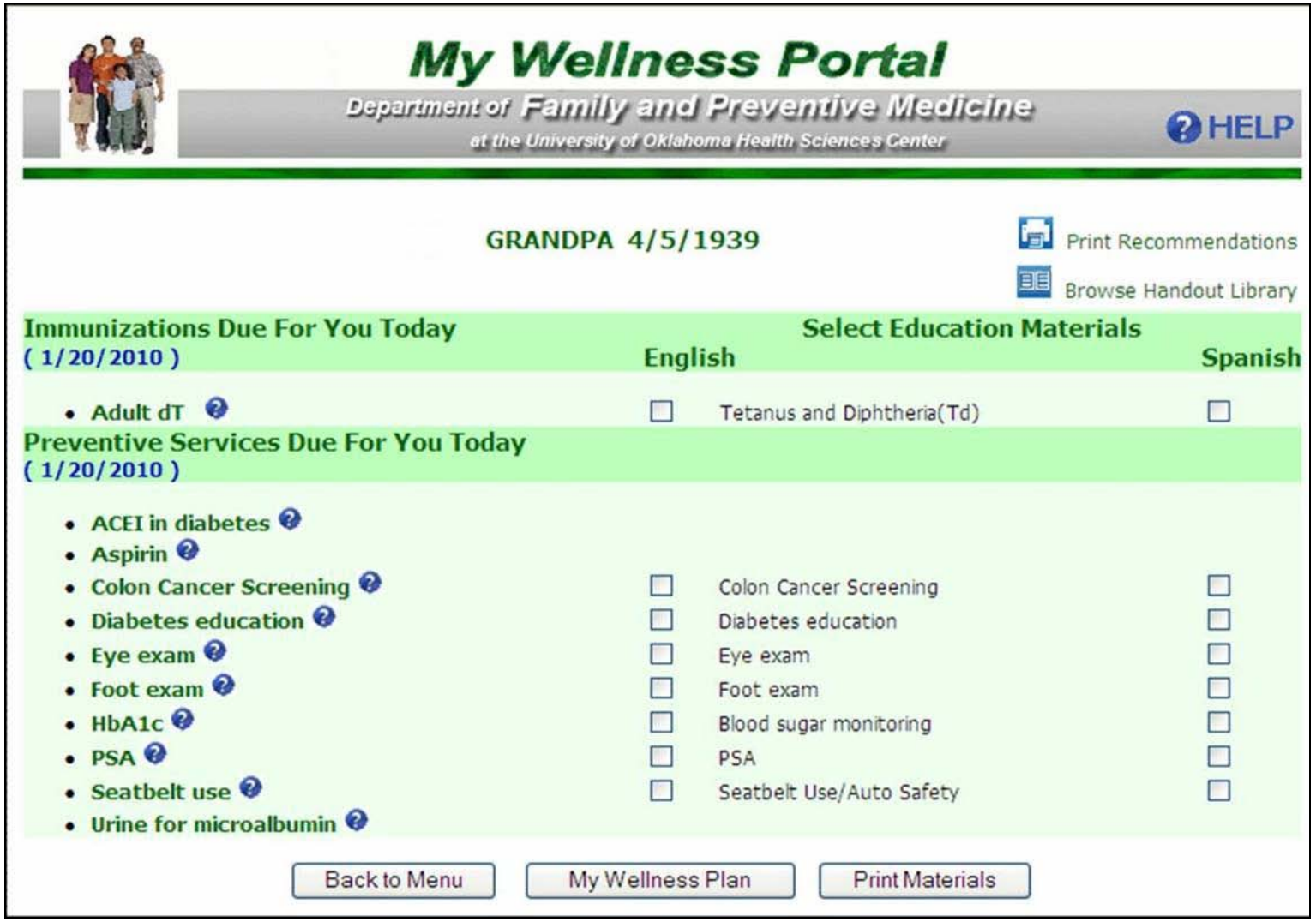


HRA: Health Risk Appraisal; EHR: Electronic Health Record; CCR: Continuity of Care Record
PSRS: Preventive Services Reminder System

Options for Engagement: Wellness Portal Features

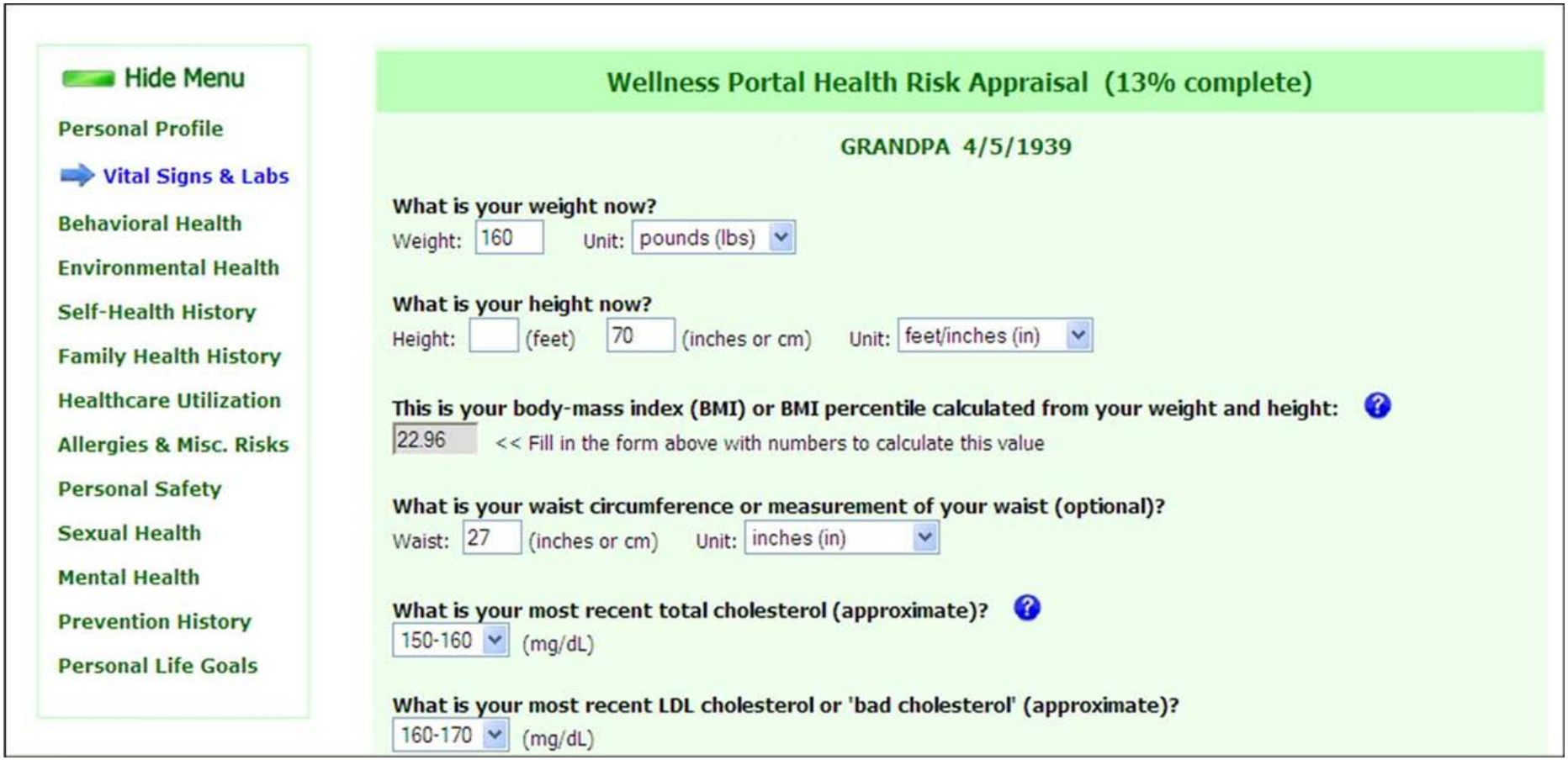


Personalized Wellness Plan: The Unit of Success



Connected Health Risk Appraisal: A Starting Point

215 personal risk factors are gauged across 13 domains of health in ~20 minutes via a new-generation HRA



Goal-directed Care Through Shared Decision-Making

Clinician Report: evidence-based and clinical (life expectancy)
Patient Report: practical, and helpful (Real Age, Wellness Score)

GRANDPA 4/5/1934 (76 years old)

Your estimated **"RealAge" is: 83.3 years.** This means that although your calendar age is 76 years, your body is as "old" as that of an average 83.3 year old in your peer group (same age, gender, and ethnicity).

Your **Wellness Score is: 77.1** A score of 100 means "average" health. Less than 100 shows worse than average, while over 100 indicates better than average health.

Preventive Services	Share of Benefit
Physical activity improvement	
Weight control	
Blood pressure control (~130/85)	
Low dose aspirin	
Adjusting sleeping time	
Lipid control (LDL<130; HDL>45)	
Blood sugar control	
Foot exam	
Eye exam	
Diabetes education	
ACE inhibitor medicine in diabetes	
Adult dT	
Average blood sugar (HbA1c)	
Colonoscopy	
Sun exposure protection	
Urine for microalbumin	
Healthier diet	

Most Significant Challenges in Portal Participant Engagement

1) Gaps in access and basic computer or Internet literacy in various populations (tiers of Internet use)
2) Understanding secure account management ("I lost my *strong* password again"): a perpetual problem
3) "When is the study over?" The radical idea of lasting change is a care delivery paradigm shift
4) Keeping Portal users engaged in a periodic care environment: could healthier people benefit?

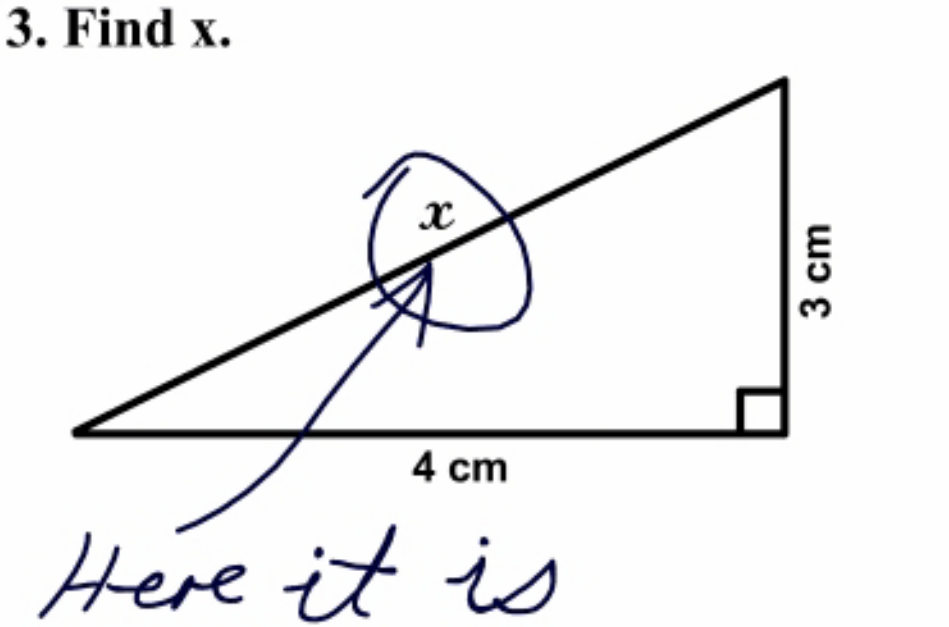
Understanding Our Audience

Who Is the Average Patient? Is He/She Prepared?

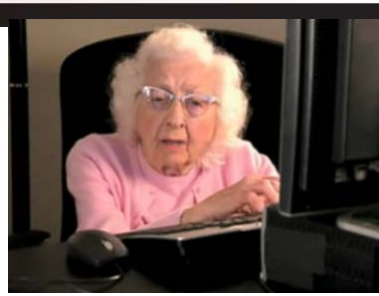
- Mean household income is ~$60K (median is ~$50K)
- Post-tax expenses ~ 80% of pre-tax income (95% of median income)
- Minimal assets left over for out-of-pocket expenses
- High school graduate, may have “some” college education
- Reads at 6th-8th grade level
- Roughly 30%-50% chance of being “health illiterate,” or “innumerate”, “computer illiterate” or all of the above
- Well “trained” to demand usual (inefficient) health care

The Human Mind Has No Limits

"*The difference between genius and challenged is that genius has its limits.*" - Albert Einstein (paraphrased)



Understanding Our Audience



The Intricacies of Computer and Internet Literacy

~70% Internet and e-mail use in the Medicare population in rural(!) Oklahoma*, BUT:

Tier I user: "I click on this thing and it takes me to my e-mail."
Tier II user: "I browse the Internet regularly for health and provider information."

Tier III user: "I can manage a secure web-based account and communicate with my doctor online."
Tier IV user: "I am a geek. I know how stuff works, so errors and glitches usually can't stop me."

* Mold, Aspy, Nagykaldi et al. JOSMA, 2009

What Worked?

Addressing Access and Computer / Internet Literacy Problems

- Offering a variety of options to interact with the Portal (home, public library, office kiosk, wireless tablet, web-enabled cell phone, involving family)
- Proactive screening for web utilization tiers and offering a corresponding mode of education / training (from standard website help to brief personal training)
- Early identification of usual barriers and inclusion of helpful tips in general communications and web design

Addressing Account Management Issues & Knowledge Gaps

- Achieving a painstaking balance between security and usability (e.g. pre-created accounts; temporary e-mailed passwords; single sign-on from practices)
- Proactive anticipation of account management problems from security logs and offering individualized help (even before user might ask)
- Audio-visual context-sensitive help and tiered user education about best practices and reasons for balancing security measures with ease of use

What Worked?

Addressing Practice Transformations and Lasting Change: "Meaningful Use"

- #1 lesson from health IT experiences: disconnected technologies don't work well and won't last (health IT integration into the process of regular care delivery)
- Practice redesign is an essential part of implementing enabling technologies (HIT - the engine of PCMH)
- New system of care delivery and IT use must become the new standard of care ("usual" practice)
- Practices need help: practice facilitators are agents of change working via health/IT extension centers

Addressing the Problem of Maintaining the Level of Engagement

- Connecting periodically used clinical systems to regular patient activities: payment, scheduling, results feedback, and communication (added value)
- Aligning financial incentives with technology use (e.g. double incentive for adherence to wellness plan)
- Providing just-in-time guidance and useful health information (e.g. influenza self-management toolkit)
- Incorporating social media to involve the community in the wellness process (“the wisdom of the crowd”)

Summary of Achievements

Interventions that Improved or Helped Sustain Patient and Practice Participation – *Value to Patients & Practices*

Patients:

- Tiered and context-sensitive online help & patient education
- Interactive and context-sensitive video Portal tutorial
- Short Portal demo video looped in the waiting room
- 24/7 easy access to technical support (phone and e-mail)
- Periodical e-mail reminders and recommendations (newsletter)
- Intelligent problem discovery and proactive user assistance
- Patient wellness record is available as a PHR (in CCR format)

Practices:

- Extensive in-practice training and careful process redesign
- Audiovisual practice training materials (role-based)
- Continuous access to a practice facilitator (PEA)

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Medicaid Implementation	OK Medicaid (Contract)
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Key Contributors:

James Mold, MD, MPH (PI)	Katy D Smith, MS (PEA)
Zsolt Nagykaldi, PhD (Co-PI)	Crystal Turner, MPH (PEA)
Cheryl Aspy, PhD (Co-PI)	Cara Vaught, MPH (PEA)
Ann Chou, PhD (Co-PI)	Eileen Merchen, MS (PEA)
Robert Salinas, MD (consultant)	OKPRN clinicians and patients
John H Wasson, MD (consultant)	Portal Advisory Committee Members